



# SEQUENCE LISTING

<110> YEH, EDWARD T.H.

<120> USES FOR A NOVEL CELL-DEATH-PROTECTING PROTEIN

<130> UTSH:248US

<140> 09/484,964

<141> 2000-01-18

<150> 08/964,162

<151> 1997-11-04

<150> 60/030,302

<151> 1996-11-05

<160> 18

<170> PatentIn Ver. 2.0

<210> 1

<211> 1465

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (88)..(390)

<400> 1

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                               Met Ser Asp Gln Glu Ala Lys Pro Ser
                               1           5

act gag gac ttg ggg gat aag aag caa ggt gaa tat att aaa ctc aaa 162
Thr Glu Asp Leu Gly Asp Lys Lys Gln Gly Glu Tyr Ile Lys Leu Lys
 10           15           20           25

gtc att gga cag gat agc agt gag att cac ttc aaa gtg aaa atg aca 210
Val Ile Gly Gln Asp Ser Ser Glu Ile His Phe Lys Val Lys Met Thr
           30           35           40

aca cat ctc aag aaa ctc aaa gaa tca tac tgt caa aga cag ggt gtt 258
Thr His Leu Lys Lys Leu Lys Glu Ser Tyr Cys Gln Arg Gln Gly Val
           45           50           55

cca atg aat tca ctc agg ttt ctc ttt gag ggt cag aga att gct gat 306
Pro Met Asn Ser Leu Arg Phe Leu Phe Glu Gly Gln Arg Ile Ala Asp
           60           65           70

aat cat act cca aaa gaa ctg gga atg gag gaa gaa gat gtg att gaa 354
Asn His Thr Pro Lys Glu Leu Gly Met Glu Glu Glu Asp Val Ile Glu
           75           80           85

gtt tat cag gaa caa acg ggg ggt cat tca aca gtt tagatattct 400
Val Tyr Gln Glu Gln Thr Gly Gly His Ser Thr Val
           90           95          100

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gtgggtgttca aaacggaatt gaaaactggc accccatctc tttgaaacat ctggtaattt 520
gaattctagt gctcattatt cattattgtt tggtttcatt gtgctgattt ttgggtgatca 580
agcctcagtc cccttcatat taccctctcc tttttaaaaa ttacgtgtgc acagagagggt 640
cacctttttc aggacattgc attttcaggc ttgtgggtgat aaataagatc gaccaatgca 700
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ggagcactga aagttaactga agtgccttct gaatcaagga ttttaattaag gccacaatac 1360
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<210> 2
<211> 101
<212> PRT
<213> Homo sapiens

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<400> 2
Met Ser Asp Gln Glu Ala Lys Pro Ser Thr Glu Asp Leu Gly Asp Lys
 1          5          10          15
Lys Gln Gly Glu Tyr Ile Lys Leu Lys Val Ile Gly Gln Asp Ser Ser
      20          25          30
Glu Ile His Phe Lys Val Lys Met Thr Thr His Leu Lys Lys Leu Lys
      35          40          45
Glu Ser Tyr Cys Gln Arg Gln Gly Val Pro Met Asn Ser Leu Arg Phe
      50          55          60
Leu Phe Glu Gly Gln Arg Ile Ala Asp Asn His Thr Pro Lys Glu Leu
      65          70          75          80
Gly Met Glu Glu Glu Asp Val Ile Glu Val Tyr Gln Glu Gln Thr Gly
      85          90          95
Gly His Ser Thr Val
      100

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<210> 3
<211> 774
<212> DNA
<213> Homo sapiens
<220>
<221> modified_base
<222> (53)
<223> Y = C or T
<220>
<221> modified_base
<222> (689)
<223> N = A, C, G or T
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<221> modified_base
<222> (739)
<223> N = A, C, G or T
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<223> N = A, C, G or T

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<400> 3

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aagactgaga acaacgatca tattaatttg aagggtggcg ggccaggatgg ttctgtggtg 180
cagtttaaga ttaagaggca tacaccactt agtaaactaa tgaaagccta ttgtgaacga 240
cagggattgt caatgaggca gatcagattc cgatttgacg ggcaaccaat caatgaaaca 300
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accgtatagt tttctctatt ctttcatttc ccccttcccc attcctttat tgtacataaa 540
gtaactggta tatgtgcaca agcatattgc attttttttt tttttaacta aacagccaat 600
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<210> 4

<211> 95

<212> PRT

<213> Homo sapiens

<400> 4

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Met Ala Asp Glu Lys Pro Lys Glu Gly Val Lys Thr Glu Asn Asn Asp
 1             5             10             15
His Ile Asn Leu Lys Val Ala Gly Gln Asp Gly Ser Val Val Gln Phe
      20             25             30
Lys Ile Lys Arg His Thr Pro Leu Ser Lys Leu Met Lys Ala Tyr Cys
      35             40             45
Glu Arg Gln Gly Leu Ser Met Arg Gln Ile Arg Phe Arg Phe Asp Gly
      50             55             60
Gln Pro Ile Asn Glu Thr Asp Thr Pro Ala Gln Leu Glu Met Glu Asp
      65             70             75             80
Glu Asp Thr Ile Asp Val Phe Gln Gln Gln Thr Gly Gly Val Tyr
      85             90             95

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<210> 5

<211> 1733

<212> DNA

<213> Homo sapiens

<220>

<221> modified\_base

<222> (19)

<223> N = A, C, G or T

<400> 5

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gcagttcaag atcaagaggc acacgtcgct gagcaagctg atgaaggcct actgcgagag 240
gcagggcttg tcaatgaggc agatcagatt caggttcgac gggcagccaa tcaatgaaac 300
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gctcatttgt gttttcccc cctcctacaa cattttttta accccaaaat tatagcctga 720
atgttcgctt ttagtctggc cagggatctg actcctgagt tggttgcctc tcccctgctc 780
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tactggaatg cttcttcaaa gggttaaaaa taaccgagtc ttttggtaat ttgacccac 1020
gtgctctctg gccctcaagc atgtaacctc ggggtctgag gcccaggacc cccccctg 1080
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<210> 6
<211> 103
<212> PRT
<213> Homo sapiens

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<400> 6
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  1          5          10          15
Ile Asn Leu Lys Val Ala Gly Gln Asp Gly Ser Val Val Gln Phe Lys
          20          25          30
Ile Lys Arg His Thr Ser Leu Ser Lys Leu Met Lys Ala Tyr Cys Glu
          35          40          45
Arg Gln Gly Leu Ser Met Arg Gln Ile Arg Phe Arg Phe Asp Gly Gln
          50          55          60
Pro Ile Asn Glu Thr Asp Thr Pro Ala Gln Leu Arg Met Glu Asp Glu
          65          70          75          80
Asp Thr Ile Asp Val Phe Gln Gln Gln Thr Gly Gly Val Pro Glu Ser
          85          90          95
Ser Leu Ala Gly His Ser Phe
          100

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<210> 7
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      Peptide

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<400> 7
Arg Gly Ser His His His His His
  1          5

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<210> 8
<211> 30
<212> DNA
<213> Homo sapiens

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<400> 8
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<210> 9  
<211> 30  
<212> DNA  
<213> Homo sapiens

<400> 9  
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30

<210> 10  
<211> 7  
<212> PRT  
<213> Artificial Sequence  
<220>  
<223> Description of Artificial Sequence: Synthetic  
Peptide

<400> 10  
Arg Gly Ser His His His His  
1 5

<210> 11  
<211> 9  
<212> PRT  
<213> Influenza virus

<400> 11  
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala  
1 5

<210> 12  
<211> 4  
<212> PRT  
<213> Homo sapiens

<400> 12  
His Ser Thr Val  
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<210> 13  
<211> 101  
<212> PRT  
<213> Saccharomyces cerevisiae

<400> 13  
Met Ser Asp Ser Glu Val Asn Gln Glu Ala Lys Pro Glu Val Lys Pro  
1 5 10 15  
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20 25 30  
Ser Glu Ile Phe Phe Lys Ile Lys Lys Thr Thr Pro Leu Arg Arg Leu  
35 40 45  
Met Glu Ala Phe Ala Lys Arg Gln Gly Lys Glu Met Asp Ser Leu Arg  
50 55 60  
Phe Leu Tyr Asp Gly Ile Arg Ile Gln Ala Asp Gln Thr Pro Glu Asp  
65 70 75 80  
Leu Asp Met Glu Asp Asn Asp Ile Ile Glu Ala His Arg Glu Gln Ile  
85 90 95

Gly Gly Ala Thr Tyr  
100

<210> 14  
<211> 80  
<212> PRT  
<213> Homo sapiens

<400> 14  
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20 25 30  
Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys  
35 40 45  
Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu  
50 55 60  
Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Gly Gly Leu Arg  
65 70 75 80

<210> 15  
<211> 76  
<212> PRT  
<213> Homo sapiens

<400> 15  
Met Leu Ile Lys Val Lys Thr Leu Thr Gly Lys Glu Ile Glu Ile Asp  
1 5 10 15  
Ile Glu Pro Thr Asp Lys Val Glu Arg Ile Lys Glu Arg Val Glu Glu  
20 25 30  
Lys Glu Gly Ile Pro Pro Gln Gln Gln Arg Leu Ile Tyr Ser Gly Lys  
35 40 45  
Gln Met Asn Asp Glu Lys Thr Ala Ala Asp Tyr Lys Ile Leu Gly Gly  
50 55 60  
Ser Val Leu His Leu Val Leu Ala Leu Arg Gly Gly  
65 70 75

<210> 16  
<211> 30  
<212> PRT  
<213> Homo sapiens

<400> 16  
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Pro Phe Gln Lys Leu Ile Phe Lys Gly Lys Ser Leu Lys Glu  
20 25 30

<210> 17  
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<212> DNA  
<213> Homo sapiens

<220>

<221> CDS,  
<222> (136) .. (438)

<400> 17

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gaagccaccg tcatc atg tct gac cag gag gca aaa cct tca act gag gac 171
      Met Ser Asp Gln Glu Ala Lys Pro Ser Thr Glu Asp
      1             5             10

ttg ggg gat aag aag caa ggt gaa tat att aaa ctc aaa gtc att gga 219
Leu Gly Asp Lys Lys Gln Gly Glu Tyr Ile Lys Leu Lys Val Ile Gly
      15             20             25

cag gat agc agt gag att cac ttc aaa gtg aaa atg aca aca cat ctc 267
Gln Asp Ser Ser Glu Ile His Phe Lys Val Lys Met Thr Thr His Leu
      30             35             40

aag aaa ctc aaa gaa tca tac tgt caa aga cag ggt gtt cca atg aat 315
Lys Lys Leu Lys Glu Ser Tyr Cys Gln Arg Gln Gly Val Pro Met Asn
      45             50             55             60

tca ctc agg ttt ctc ttt gag ggt cag aga att gct gat aat cat act 363
Ser Leu Arg Phe Leu Phe Glu Gly Gln Arg Ile Ala Asp Asn His Thr
      65             70             75

cca aaa gaa ctg gga atg gag gaa gaa gat gtg att gaa gtt tat cag 411
Pro Lys Glu Leu Gly Met Glu Glu Glu Asp Val Ile Glu Val Tyr Gln
      80             85             90

gaa caa acg ggg ggt cat tca aca gtt tagatattct ttttattttt 458
Glu Gln Thr Gly Gly His Ser Thr Val
      95             100

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<210> 18  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 18  
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 20 25 30  
 Glu Ile His Phe Lys Val Lys Met Thr Thr His Leu Lys Lys Leu Lys  
 35 40 45  
 Glu Ser Tyr Cys Gln Arg Gln Gly Val Pro Met Asn Ser Leu Arg Phe  
 50 55 60  
 Leu Phe Glu Gly Gln Arg Ile Ala Asp Asn His Thr Pro Lys Glu Leu  
 65 70 75 80  
 Gly Met Glu Glu Glu Asp Val Ile Glu Val Tyr Gln Glu Gln Thr Gly  
 85 90 95  
 Gly His Ser Thr Val  
 100